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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,291	07/24/2003	Daniel F. Hall	47080-00047USPT	3663

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EXAMINER

THOMAS, BRANDI N

ART UNIT PAPER NUMBER

2873

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/626,291

Applicant(s)

HALL ET AL.

Examiner

Brandi N. Thomas

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Detailed Action.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3 and 5-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Hikake et al. (2004/0032817 A1).

Regarding claim 1, Hikake et al. discloses, in figures 7 and 8, a cast bench (70 and 70a) for holding laser components comprising: a base (70) having a top surface (section 0028); and a plurality of optical component supports (49, 74, and 76) being position to support optical components (22, 80, and 81) (sections 0031 and 0066).

Regarding claim 2, Hikake et al. discloses, in figures 7 and 8, a cast bench (70 and 70a) for holding laser components, wherein said optical components supports (49, 74, and 76) are provided in a plurality of heights, in a plurality of widths, and in a plurality of areas throughout said top surface of said base (70) (section 0031 and 0066).

Regarding claim 3, Hikake et al. discloses, in figures 7 and 8, a cast bench (70 and 70a) for holding laser components, wherein selected ones of said optical component supports (49, 74, and 76) are customizable optical component supports (section 0031 and 0066), said customizable optical component supports (49, 74, and 76) comprising a soled piece of material extending from said base (70) and being adapted for customization to hold specific optical components (22, 80, and 81) in specific positions of said bench (70 and 70a) (figures 1 and 7).

Regarding claim 5, Hikake et al. discloses, in figures 1, 7, and 8, a cast bench (70 and 70a) for holding laser components, wherein said bench (70 and 70a) is provided with rigidity by

Art Unit: 2873

cast support struts (77) integral with said base (70) (figures 7 and 8) (section 0031), said cast support struts (77) being spaced to form at least a first support region (right side of base 70) and a second support region, (left side of base 70) said first support region (right side of base 70) having support struts (74 and 76) spaced more closely together than the support struts (77) of said second support region (left side of base 70) (see figure 7 and 8).

Regarding claim 6, Hikake et al. discloses, in figures 1, 7, and 8, a cast bench (70 and 70a) for holding laser components, wherein at least two of said optical component supports (74 and 76) are sized and positioned to act in concert to hold a single optical component (32b and laser cartridge) (sections 0031 and 0039).

Regarding claim 7, Hikake et al. discloses, in figures 1, 7, and 8, a cast bench (70 and 70a) for holding laser components, further comprising at least one aperture (2 cutout in the base 70) cast into said bench (70 and 70a) through said top surface of said base (70) (figure 7), said aperture (2 cutouts in the base 70) being adapted to accept conduits therethrough for connection to components mounted on said bench (70 and 70a) (figure 2).

Regarding claim 8, Hikake et al. discloses, in figures 1, 7, and 8, a cast bench (70 and 70a) for holding laser components, further comprising at least one conduit guide (23b) beneath said top surface of said bench (70 and 70a) for routing said conduits beneath said top surface (sections 0031 and 0039)).

Regarding claim 9, Hikake et al. discloses, in figures 1, 7, and 8, a cast bench (70 and 70a) for holding laser components, wherein a plurality of said optical component supports (49, 74, and 76) are provided with threaded holes (figure 7) therein for accepting optical components

Art Unit: 2873

(22, 80, and 81) or intermediate optical component mounts (figures 1 and 7) (sections 0031 and 0039).

2. Claims 4, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikake et al. (2004/0032817 A1) as applied to claim 1 above, and further in view of Willis (6771437 B1).

Regarding claim 4, Regarding claim 4, Hikake et al. discloses, in figures 7 and 8, a cast bench (70 and 70a) for holding laser components but does not specifically disclose a kinematic mount area provided in said top surface of said base, said kinematic mount area comprising a kinematic mount cone, a kinematic mount groove, and a kinematic mount flat surface. Willis discloses, in figures 2a and 2b, a kinematic mount area provided in said top surface of said base (210), said kinematic mount area comprising a kinematic mount cone (215), a kinematic mount groove (215a), and a kinematic mount flat surface (x and z mounting pads) (col. 6, lines 4-13). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the device of Hikake et al. with the kinematic mount of Willis for the purpose of constraining the optical bench (col. 2, lines 7-14).

Regarding claim 18, Hikake et al. discloses, in figures 7 and 8, an optical mounting system comprising: a cast base (70) (section 0028); a plurality of optical component supports (49, 74, and 76) cast with and integral with said cast base (70) and extending outwardly from a top surface of said cast base (70) (figure 7); a plurality of support struts (77) integral with said base (70) (figures 7 and 8) (section 0031) and spaced beneath said top surface of said cast base (70) to form a first region (right side of base 70) and a second region, (left side of base 70) of

Art Unit: 2873

said cast base (70) (sections 0031 and 0066), the support struts (77) providing rigidity to said cast base (70) (figure 7), said first support region (right side of base 70) having support struts (74 and 76) spaced more closely together than the support struts (77) of said second support region (left side of base 70) (see figure 7 and 8) but does not specifically disclose a kinematic mount area provided in said top surface of said base, said kinematic mount area comprising a kinematic mount cone, a kinematic mount groove, and a kinematic mount flat surface. Willis discloses, in figures 2a and 2b, a kinematic mount area provided in said top surface of said base (210), said kinematic mount area comprising a kinematic mount cone (215), a kinematic mount groove (215a), and a kinematic mount flat surface (x and z mounting pads) (col. 6, lines 4-13).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the device of Hikake et al. with the kinematic mount of Willis for the purpose of constraining the optical bench (col. 2, lines 7-14).

Regarding claim 20, Hikake et al. discloses, in figures 7 and 8, a cast bench (70 and 70a) for holding laser components, wherein selected ones of said optical component supports (49, 74, and 76) are customizable optical component supports (section 0031 and 0066), said customizable optical component supports (49, 74, and 76) comprising a soled piece of material extending from said base (70) and being adapted for customization to hold specific optical components (22, 80, and 81) in specific positions of said bench (70 and 70a) (figures 1 and 7).

*Allowable Subject Matter*

1. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claim(s), in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in claim(s) 19, wherein the claimed invention comprises a main oscillator mounted on said kinematic mount components and a gain module mounted on said base at said second region, as claimed.

*Response to Arguments*

3. Applicant's arguments with respect to claims 1-9 and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 2873

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandi N. Thomas whose telephone number is 571-272-2341. The examiner can normally be reached on 7- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BNT

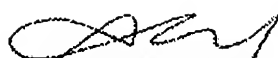
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Application/Control Number: 10/626,291

Page 8

Art Unit: 2873



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Primary Examiner  
Art Unit 2873